



**UNDER REVIEW**

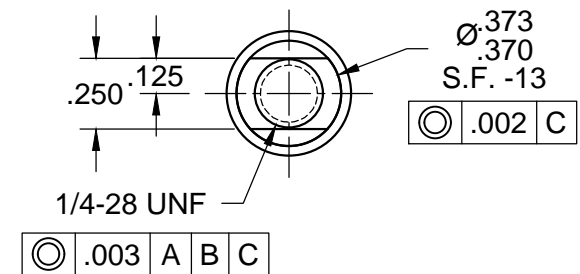
URF 19-1116 19.10.30 (VM)

TOOL #	MATERIAL
KST302T001-804P	4140 Q&R RND. BAR Ø7/8 x 7/8


 <b>RED BARN MACHINE</b>	
<b>TITLE</b> BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL	
<b>DWG NO.</b> TOOL#(see chart)-15 TENSIONER	<b>REV</b> -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 X ± .1	DRAWN BY: <b>PERRITT</b> APPROVED HEAT TREAT FINISH SPEC <b>BLACK OXIDE</b> USED ON BEARING <b>SEE CHART</b>
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SCALE <b>NTS</b> DATE <b>2-18-09</b> SHEET <b>9 of 9</b>

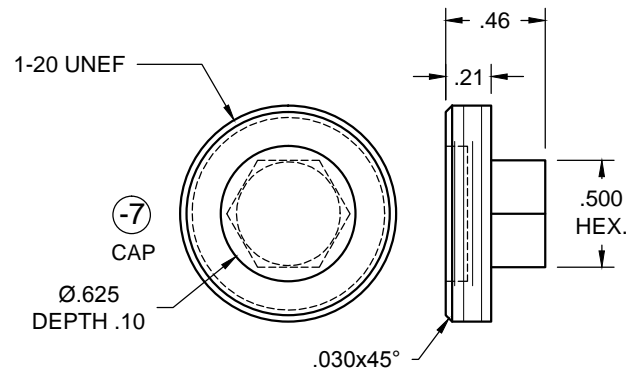


 <b>RED BARN MACHINE</b>	
<b>TITLE</b> BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL	
<b>DWG NO.</b> TOOL#(see chart)-11 DUAL SEAT	<b>REV</b> -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  TOLERANCES ON: DECIMALS .XXX ± .005 XX ± .01 X ± .1 FRACTIONS ± 1/32 ANGLES ± .5°	<b>DRAWN BY:</b> PERRITT  APPROVED  HEAT TREAT FINISH BLACK OXIDE SPEC  USED ON BEARING  <b>SEE CHART</b>
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES 015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
<b>SCALE</b> NTS	<b>DATE</b> 2-18-09
<b>SHEET</b> 7 of 9	

[illegible]

**UNDER REVIEW**  
URF 19-1116 19.10.30 (VM)


 <b>RED BARN MACHINE</b>			
<b>TITLE</b> BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL			
<b>DWG NO.</b> TOOL#(see chart)-9 STUD			<b>REV</b> -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS XXX ± .005 XX ± .01 X ± .1		<b>DRAWN BY:</b> PERRITT APPROVED HEAT TREAT FINISH SPEC <b>BLACK OXIDE</b>	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES 015 x 45° PR. 015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		USED ON BEARING <b>SEE CHART</b>	
<b>SCALE</b>	NTS	<b>DATE</b>	2-18-09
		<b>SHEET</b>	6 of 9



**UNDER REVIEW**

URF 19-1116 19.10.30 (VM)

TOOL #	MATERIAL
KST302T001-804P	1018 RND. BAR Ø1 x 5/8


 <b>RED BARN MACHINE</b>	
<b>TITLE</b> BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL	
<b>DWG NO.</b> TOOL#(see chart)-7 CAP	<b>REV</b> -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 X ± .1	DRAWN BY: <b>PERRITT</b> APPROVED HEAT TREAT FINISH <b>BLACK OXIDE</b> SPEC USED ON BEARING <b>SEE CHART</b>
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SCALE <b>NTS</b>
DATE <b>2-18-09</b>	SHEET <b>5 of 9</b>

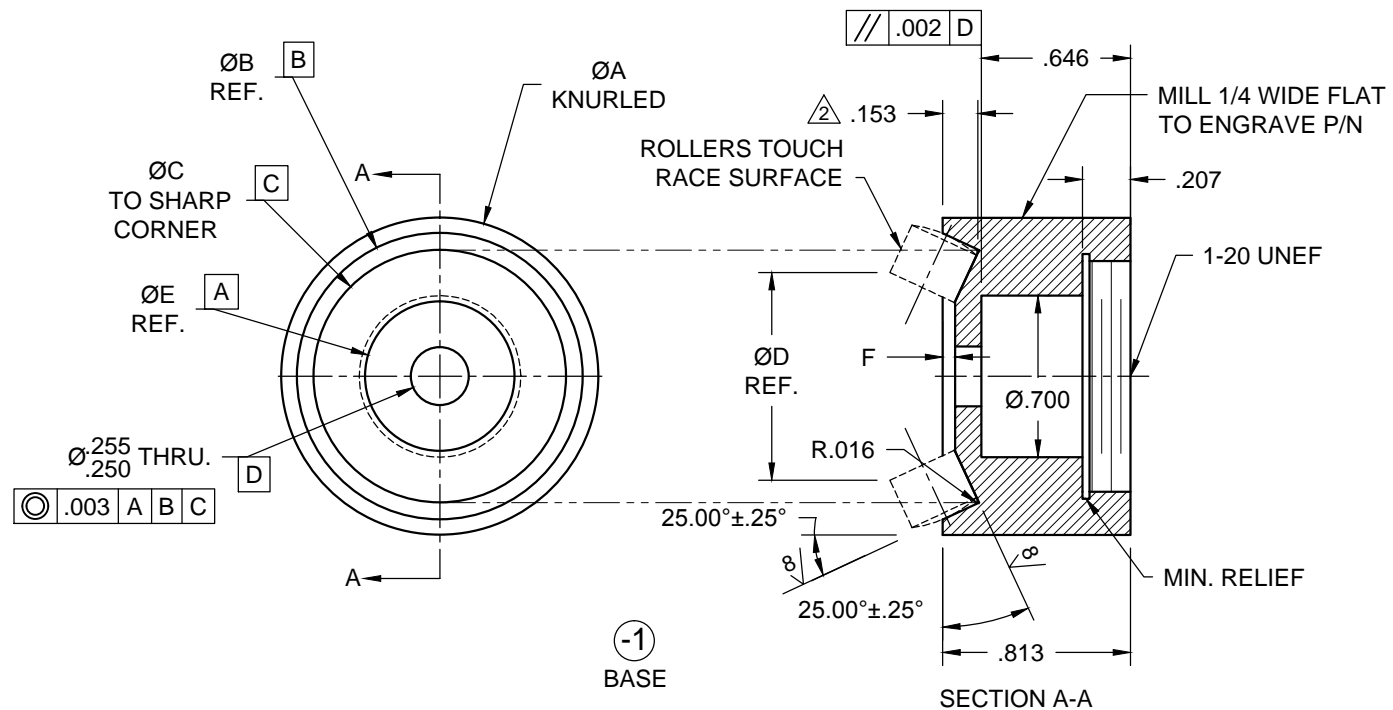


## NOTES



URF 19-1116 19.10.30 (VM)

 <span style="font-size: 2em; font-family: serif;">RED BARN MACHINE</span>			
TITLE <span style="font-size: 1.5em;">BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL</span>			
DWG NO. <span style="font-size: 1.5em;">TOOL#(see chart)-3 RETAINER</span>		REV <span style="font-size: 1.5em;">-</span>	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 X ± .1  FRACTIONS ± 1/32 ANGLES ± 5°		DRAWN BY: <span style="font-size: 1.2em;">PERRITT</span>	
		APPROVED	
		HEAT	
		TREAT	
		FINISH SPEC	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR. 0.15 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		USED ON BEARING	
		<span style="font-size: 1.5em;">SEE CHART</span>	
		(Empty space for additional notes or signatures)	
SCALE <span style="font-size: 1.5em;">NTS</span>	DATE <span style="font-size: 1.5em;">2-18-09</span>	SHEET <span style="font-size: 1.5em;">3 of 9</span>	(Empty space for additional notes or signatures)



**UNDER REVIEW**

URF 19-1116 19.10.30 (VM)

TOOL #	ØA + .000 - .020	ØB + .006 - .002	ØC + .006 - .002	ØD P.D. REF.	ØE + .006 - .002	F + .003 - .003	MATERIAL
KST302T001-804P	1.375	1.114	.968	.775	.522	.053	O-1 DRILL ROD Ø1-3/8 x 7/8

- NOTES**
- BREAK ALL SHARP CORNERS (.015/.03).
  - DIMENSION TO BOTTOM OF R.016=.153;  
DIMENSION TO SHARP CORNER=.158.
  - RACE SURFACE OF -1 BASE MUST BE SMOOTH AND FREE OF GROOVES & MACHINING MARKS.
  - MUST HOLD ØC POSITION AND ANGLE TOLERANCES TO MAINTAIN PITCH DIA..
  - DO FIRST ARTICLE INSPECTION BEFORE HEAT TREATING.

<b>RED BARN MACHINE</b>	
TITLE BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL	
DWG NO. TOOL#(see chart)-1 BASE	REV -
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± 5° X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 2-18-09
SHEET 2 of 9	
DRAWN BY: PERRITT	
APPROVED	
HEAT TREAT RC 55-60	
FINISH BLACK OXIDE	
USED ON BEARING	
SEE CHART	

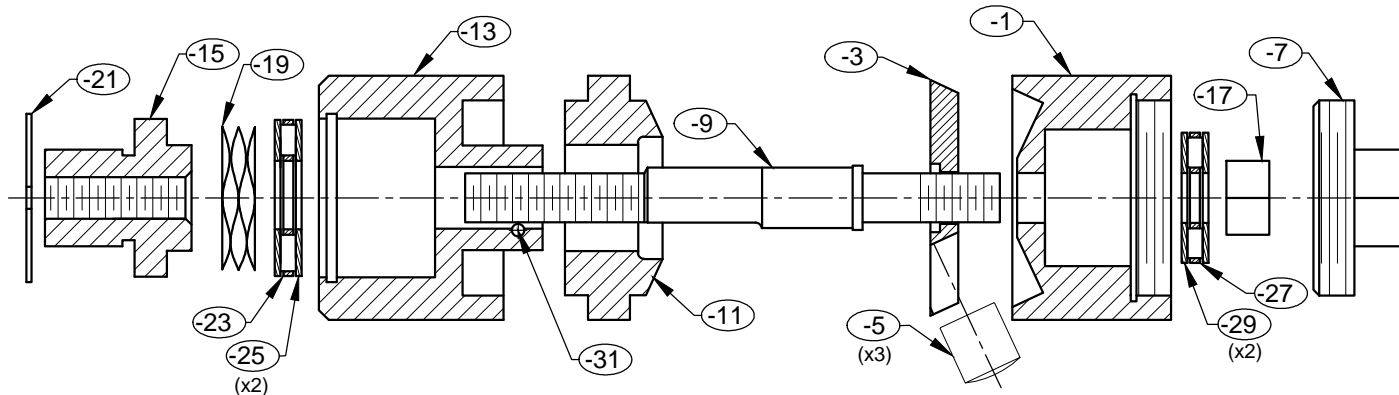


This drawing, specifications, and concepts contained herein are the sole property of Red Barn Machine, and may not be reproduced or used in any fashion without the prior written permission of Red Barn Machine.

REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	-	-	-	-

**UNDER REVIEW**

URF 19-1116 19.10.30 (VM)



#### NOTES

- 5 ROLLERS AND -3 RETAINER MUST TURN SMOOTHLY ON -1 BASE WHEN ASSEMBLED.
- FLAT END OF -5 ROLLERS MUST FACE THE CENTER OF TOOL WHEN ASSEMBLED.

BEARINGS & TOOLS COVERED	
BEARING #	TOOL #
S302T001-804	KST302T001-804P

ASSY QTY	ASSY QTY	B/O	PART #	UNIT QTY	DESCRIPTION	MAT.	B/O INFORMATION OR SPECIFICATIONS	Pg.
			-1	1	BASE		SEE CHART	2
			-3	1	RETAINER		SEE CHART	3
			-5	3	ROLLER		SEE CHART	4
			-7	1	CAP		SEE CHART	5
			-9	1	STUD		SEE CHART	6
			-11	1	DUAL SEAT		SEE CHART	7
			-13	1	RECEIVER		SEE CHART	8
			-15	1	TENSIONER		SEE CHART	9
		B/O	-17	1	DISTORTED THREAD LOCK NUT	STEEL	1/4-20 UNC x 7/32 Ht. MCMaster-CARR #95065A150	1
		B/O	-19	1	CREST TO CREST FLAT WIRE WAVE SPRING	STEEL	.750 OD., .550 ID., WIRE THICK. .013, THREE TURNS SMALLEY RING CO. #CS075-H1	1
		B/O	-21	1	INTERNAL SNAP RING	STEEL	Ø7/8 BORE MCMaster-CARR #99142A410	1
		B/O	-23	1	THRUST BEARING (SPRING SIDE)	STEEL	Ø3/8 ID. x 13/16 OD. x 5/64 WIDTH APPLIED (TIMKEN #NTA-613)	1
		B/O	-25	2	BEARING WASHER	STEEL	Ø3/8 ID. x 13/16 OD. x 1/32 WIDTH APPLIED (TIMKEN #TRA-613)	1
		B/O	-27	1	THRUST BEARING	STEEL	Ø1/4 ID. x 11/16 OD. x 5/64 WIDTH APPLIED (TIMKEN #NTA-411)	1
		B/O	-29	2	BEARING WASHER	STEEL	Ø1/4 ID. x 11/16 OD. x 1/32 WIDTH APPLIED (TIMKEN #TRA-411)	1
		B/O	-31	1	ROLL PIN	STEEL	Ø3/32 x 3/8	N/S
ASSY #								

RED BARN MACHINE			
TITLE BEARING S302T001 SERIES PORTABLE TRI-ROLLER SWAGING TOOL			
DWG NO.	SEE CHART ABOVE FOR TOOL No.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DRAWN BY: PERRITT		
TOLERANCES ON:	APPROVED		
DECIMALS .XXX ± .005	HEAT TREAT SEE PART		
.XX ± .01	FINISH SEE PART		
.X ± .1	ANGLES ± 5°		
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON BEARING		
SCALE NTS	DATE 2-18-09	SHEET 1 of 9	

NOT APPROVED FOR PRODUCTION

**UNDER REVIEW**  
URF 19-1116 19.10.30 (VM)

 RED BARN MA

URF 19-1116 19.10.30 (VM)


 RED BARN MACHINE

NOT APPROVED FOR PRODUCTION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

UNDER REVIEW  
URF 19-1116 19.10.30 (VM)

	PART #	QTY	DESCRIPTION
	-1	1	--

DRAWN BY: PERRITT	 RED BARN MACHINE		
CHECKED			
HEAT TREAT FINISH SPEC			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± .5° .X ± .1			
USED ON MODEL	TITLE		
?	TITLE		
	DWG NO.	PART #	REV.
	SCALE NTS	DATE 1-28-06	SHEET 1 of 1
	UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		